

## REMARKS

### INTRODUCTION

In accordance with the foregoing, claims 1, 4, 7 and 11 have been amended. Claims 3 and 10 have been cancelled. Claims 1, 2, 5-9 and 11-13 are pending and under consideration.

### CLAIM REJECTIONS

Claims 1-4 and 6-13 were rejected under 35 USC 103(a) as being unpatentable over Kim et al. (KR 2002-0012368) (hereinafter "Kim").

Claim 5 was rejected under 35 USC 103(a) as being unpatentable over Kim in view of Mamiya et al. (US 2004/0172985) (hereinafter "Mamiya").

#### **Claims 1-6, 12 and 13**

Amended claim 1 recites: "...wherein the colloidal silver maker comprises a silver ion casing to define a water passage through which wash water passes and a pair of silver plates placed in the water passage of the silver ion casing and submerged by wash water flowing along the water passage to generate silver ions, the pair of silver plates being arranged in parallel to a flowing direction of the wash water." Support for this amendment may be found in at least original claim 3 and in Figure 2 of the present application.

The Office Action relies on Kim to show these features of claim 1 and specifically relies on the sterilizing water supplier 30 shown in Figures 2 and 3 of Kim. In the Office Action, specifically on pages 4 and 5 in the "Response to Arguments" section, the Examiner noted that the storage tank of Kim reads on the passage of claim 3 (now claim 1) because the tank of Kim served the same purpose as the passage of claim. The Examiner further made similar comments regarding the plates of claim 1 and the rods of Kim.

As shown above, claim 1 has been clarified to recite that the silver ion casing defines a water passage through which wash water passes and the pair of silver plates placed in the water passage and submerged by wash water flowing along the water passage to generate silver ions, and are **arranged in parallel to a flowing direction** of the wash water. As discussed below, it is respectfully submitted that these features of claim 1 patentably distinguish over Kim, and also produce results that are not expected.

Kim discusses a washing machine which contains a storage tank 31 connected to an inlet 35 connected to a water supplying valve. The storage tank 31 includes an outlet 37 directing water in the storage tank 31 toward a washing tub. A pair of silver rods 33, 34 is

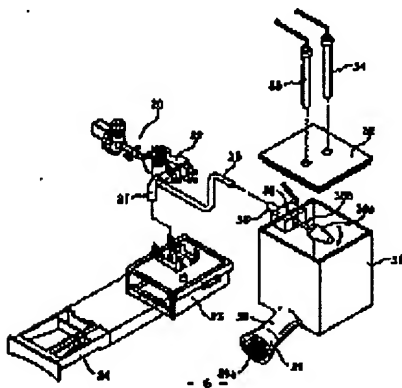
installed inside the storage tank 31 to make sterilizing water through electrolysis. An inflow valve 36 to isolate the inlet at the full level of water in the storage tank and a discharging valve 40 to supply the sterilizing water to the washing tub by opening and closing the outlet are also provided. By spraying the sterilizing water to the laundry, the laundry is sterilized.

In contrast to claim 1, it is still maintained that the storage tank 31 of Kim does not define a passage as recited in claim 1 because the apparatus of Kim requires an inflow valve 36 to isolate the inlet at the full level of water in the storage tank and a discharging valve 40 to supply the sterilizing water to the washing tub by opening and closing the outlet.

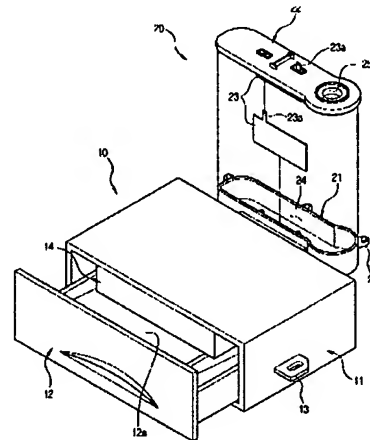
The structural passage aspect of claim 1 is an important technical feature of claim 1 because claim 1 further recites that the pair of silver plates are submerged by wash water flowing along the water passage to generate silver ions and are arranged in parallel to a flowing direction of the wash water so that the ionization of the silver plates is maximized in comparison to the ionization in the structure of Kim a pair of silver rods 33, 34 is installed inside the storage tank 31, which then requires a quantity of water to be **stored** in the storage tank 31 while ionization of the silver rods 33, 34 takes place. Specifically, in Kim the silver bars 33 and 34 are hung from the cover 32 and **are not submerged by the wash water**, which therefore provides a much lower silver ion generating efficiency than that of the structure recited in claim 1.

To emphasize these structural differences between claim 1 and Kim, the Examiner is respectfully invited to compare Figure 2 of Kim with Figure 2 of the present application

[Figure 2 of Kim]



[Figure 2 of present application]



The technical features discussed above provide that wash water is evenly mixed with colloidal silver – as opposed to the colloidal silver being concentrated in the vicinity of the rods as in Kim – while at the same time providing a structure compact sized in comparison with the

prior art. In particular, the structure of claim 1 provides for even mixing of the colloidal silver with the wash water, which cannot be realized by the structural components discussed in Kim, therefore providing an unexpected result. Further, the above noted technical features and advantages are also not obviated by the secondary reference, Mamiya.

Claim 3 has been cancelled. Claims 2, 4-6, 12 and 13 depend on claim 1 and are therefore believed to be allowable for at least the foregoing reason.

Withdrawal of the foregoing rejections is requested.

#### **Claims 7-11**

Amended claim 7 recites: "...wherein the colloidal silver maker comprises a silver ion casing to define a water passage through which water passes, with a connection pipe being provided on a predetermined portion of the silver ion casing, a lid mounted to an upper portion of the silver ion casing with an inlet hole being provided on a predetermined portion of the lid to feed the water into the silver ion casing, and a pair of silver plates placed in the silver ion casing while being supported by the lid and submerged by wash water flowing along the water passage to generate silver ions." Support for this amendment may be found in at least original claim 10 and in Figure 2 of the present application.

Similar to the argument for claim 1, it is respectfully submitted that claim 7 has been amended to clarify aspects of the present invention as recited in claim 7 which structurally patentably distinguish over Kim, and further produce unexpected results not obviated by the relied upon references.

Claim 10 has been cancelled. Claims 8, 9 and 11 depend on claim 7 and are therefore believed to be allowable for at least the foregoing reason.

Withdrawal of the foregoing rejections is requested.

**CONCLUSION**

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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Date: December 6, 2010

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